

In the Claims:

All pending claims are herewith presented for the convenience of the Examiner:

1. An image processing system that performs edge-enhancement on an image having varying characteristics, the image processing system comprising.

an image classifier that identifies the image as being at least one of a first image type and a second image type using at least one of the varying characteristics of the image; and

5 a processing circuit that, upon identification of the at least one of the varying characteristics of the image, selectively applies a first threshold or a second to the image.

2. The image processing system of claim 1, further comprising a white edge detector applying a dynamic white edge threshold.

Claims 3 through 7 are hereby cancelled without prejudice or disclaimer.

8. The image processing system of claim 1, wherein the at least one of the varying characteristics is a pixel characteristic determined using at least one additional pixel characteristic from at least one additional pixel.

9. The image processing system of claim 1, wherein the at least one of the varying characteristics is a pixel intensity.

Claims 10 through 15 are hereby cancelled without prejudice or disclaimer.

16. An image processing method used to perform edge-enhancement to an image having varying characteristics, the method comprising:

classifying the image as being at least one of a first image type and a second image type using at least one of the varying characteristics of the image; and

5 selecting and applying a first threshold or a second threshold upon identification

of at least one of the varying characteristics of the image.

Claims 17 through 19 are hereby cancelled without prejudice or disclaimer.

20. The method of claim 16, wherein the at least one of the varying characteristics is a pixel characteristic determined using at least one additional pixel characteristic from at least one additional pixel.

21. The image processing system of claim 1, further comprising a white edge detector comparing two or more pixels to a single test pixel.

22. The image processing system of claim 1, further comprising a white edge detector comparing a single test pixel to a first adjacent pixel to generate a first difference, comparing the test pixel to a second adjacent pixel to generate a second difference, comparing the test pixel to a third adjacent pixel to generate a third difference, and comparing the test pixel to a fourth adjacent pixel to generate a fourth difference, and generating a white edge detection when any of the first difference or the second difference and the third difference or the fourth difference are greater than a threshold.

23. The image processing system of claim 22 wherein the threshold is a dynamic threshold.

24. The image processing system of claim 22 wherein the first adjacent pixel and the second adjacent pixel are not adjacent to each other.

25. The image processing system of claim 1, further comprising a white edge detector comparing a single test pixel to a first adjacent pixel to generate a first difference and comparing the test pixel to a second adjacent pixel to generate a second difference, and generating a white edge detection when the first difference and the second difference are each greater than a

5 threshold.

26. The image processing system of claim 1, further comprising a white edge detector comparing a single test pixel to one or more first adjacent pixels to generate a first difference and comparing the test pixel to one or more second adjacent pixels to generate a second difference, and generating a white edge detection when the first difference and the second difference are
5 each greater than a threshold.

27. An edge detection circuit comprising:

a first test pixel comparator comparing a test pixel to one or more first adjacent pixels, generating a first difference, and determining whether the first difference is greater than a first threshold;

5 a second test pixel comparator comparing the test pixel to one or more second adjacent pixels, generating a second difference, and determining whether the second difference is greater than a second threshold; and

an edge detector receiving the determination from the first test pixel comparator and the second test pixel comparator and generating an edge detection.

28. The edge detection circuit of claim 27 wherein the first threshold and the second threshold are the same.

29. The edge detection circuit of claim 27 wherein the first threshold and the second threshold are dynamic.

30. The edge detection circuit of claim 27 wherein the first test pixel comparator further comprises:

a first sub-comparator comparing the test pixel to one of the first adjacent pixels to generate a first sub-difference and determining whether the first sub-difference is greater than a
5 first sub-threshold;

a second sub-comparator comparing the test pixel to another of the first adjacent pixels to generate a second sub-difference and determining whether the second sub-difference is greater than a second sub-threshold; and

10 outputting an indication that the first difference is greater than the first threshold if either the first sub-difference is greater than the first sub-threshold or the second sub-difference is greater than the second sub-threshold.

31. The edge detection circuit of claim 30 wherein the second test pixel comparator further comprises:

5 a third sub-comparator comparing the test pixel to one of the second adjacent pixels to generate a third sub-difference and determining whether the third sub-difference is greater than a third sub-threshold;

a fourth sub-comparator comparing the test pixel to another of the second adjacent pixels to generate a fourth sub-difference and determining whether the fourth sub-difference is greater than a fourth sub-threshold; and

10 outputting an indication that the second difference is greater than the second threshold if either the third sub-difference is greater than the third sub-threshold or the fourth sub-difference is greater than the fourth sub-threshold.

32. The edge detection circuit of claim 31 wherein the first sub-threshold, the second sub-threshold, the third sub-threshold, and the fourth sub-threshold are the same.

33. The edge detection circuit of claim 31 wherein the first sub-threshold, the second sub-threshold, the third sub-threshold, and the fourth sub-threshold are dynamic.

34. The edge detection circuit of claim 31 wherein the one of the first adjacent pixels is not adjacent to the other of the first adjacent pixels, and the one of the second adjacent pixels is not adjacent to the other of the second adjacent pixels.